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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,321	03/06/2002	Makoto Kanbe	1035-371	7734

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EXAMINER

NGUYEN, JIMMY H

ART UNIT PAPER NUMBER

2673

DATE MAILED: 06/25/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,321

Applicant(s)

KANBE ET AL.

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18,20,23,31,33,41 and 45-49 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 18,20,23,31,33,41 and 45-49 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/974,496.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.


Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6,9</u> . | 6) <input type="checkbox"/> Other: _____ |


DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 04/24/2003 (entered into the file wrapper as Paper No. 11). Claims 18, 20, 23, 31, 33, 41 and 45-49 are currently pending in the application. An action follows below:


Claim Objections

2. Claim 18 is objected to because of the following informalities: line 26, -- control -- should be inserted immediately before "circuit", so as to be consistent with the feature in line 21. 

Appropriate correction is required.

3. Claim 46 is objected to because of the following informalities: line 7, -- circuit -- should be inserted immediately after "control", so as to be consistent with the limitation in line 5. 

Appropriate correction is required.

4. Claim 23 is objected to under 37 CFR 1.75(a) because although these claims meet the requirement 112/2d, i.e., the metes and bounds are determinable, however, the features, "a source driver", "a source driver control circuit" and "an opposing electrode signal control circuit" (see lines 3-7), should be deleted since they are recited in independent claim 18. 

5. It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 18, 20, 23, 41 and 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasui et al. (USPN: 5,248,963, cited in IDS filed on 03/06/02), hereinafter Yasui.

Regarding to claims 18, 20, 23, 45 and 49, Yasui discloses an erasing device for a liquid crystal display (LCD) device (fig. 3) having a LCD panel (10) whose pixels are driven by active elements (13), for erasing a display image on said LCD panel when a power source of a main body of said LCD device is turned off, the erasing device comprising power source OFF detecting means (a voltage drop detector 24, fig. 5, abstract) for detecting the turning off of the power source of the main body of LCD device, panel power maintaining means (a power holding circuit 22) for maintaining power to the LCD panel for a certain period after the power source is turned off (col. 4, lines 50-53), and erasing means (23, 25, 27, 17 and 16) for applying an OFF-level voltage (a voltage level corresponding to pixel data D of logic "0", col. 3, lines 58-60), using the power supplied by the panel power maintaining means, to all pixels in the LCD panel, thereby erasing the display in a short time after the turning OFF of the power supply (figs. 3 and 5, col. 3, lines 1-22 and lines 58-67). Yasui further discloses the erasing means including a source driver (a source bus driver 16, fig. 3), a source driver control circuit including a capacitor (26), a resistor (26), an inverter (27) and a circuit for providing signals (D, PCK and M) to control the source driver (fig. 3), an inherent opposing electrode control circuit for outputting an opposing electrode signal (a voltage) to opposing electrodes (common electrodes 12b) (fig. 3, col. 3, lines 58-67), and a power source control circuit (a power circuit 23, fig. 5) for controlling the source driver control circuit and the opposing electrode control circuit. Yasui further teaches the source driver control circuit receives a source enable signal (an output VB, figs. 5 and 6B) at

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a selecting level during the certain period (T), so that the erasing means applies to both the pixel electrode (12a) and the opposing electrode (12b) an OFF-level voltage (the common potential EG of zero volt, col. 1, lines 58-59) within time T and a negative voltage E2 latter (col. 1, lines 58-60 and col. 6, lines 3-9). In other words, the rectangular wave signal having amplitudes of negative voltage E2 and common potential EG of zero volt is expressly taught by Yasui.

Accordingly, the Yasui reference anticipates these claims.

Regarding to claims 41, 46 and 47, as discussed above, Yasui teaches the erasing means outputting a voltage signal (E2) to both pixel electrode (12a) and opposing electrode (12b), by means of the source driver (source bus drive circuit 16) and the opposing electrode signal control circuit (fig. 3, col. 3, line 58 through col. 4, line 16). Yasui further discloses the erasing means including a gate driver (a gate bus driver 19) for outputting a gate driving signal (outputs G1, G2, ..., Gm), which turns on gate lines (15₁-15_m) sequentially to turn on the active elements (TFTs 13) per line and a gate driver control circuit (a circuit including elements 18 and 20) (see fig. 4) for receiving a gate enable signal (a clear signal CL, fig. 4), as a starting signal for the gate driver, so that a gate driving signal (G1, ..., Gm) is outputted to gate lines (15₁-15_m) (see figs. 2 and 4).

Regarding to claim 48, Yasui further discloses that, during the erasing period (T), the gate driving signal (G1, G2, ..., Gm) is fixed at a high level (col. 4, lines 3-11).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasui as applied to claim 18 above.

Regarding to these claims, Yasui fails to teach the active matrix type LCD device including a reflective LCD device or a Guest-Host LCD device. Official Notice is taken that the active matrix type LCD device including a reflective LCD device or a Guest-Host LCD device is notoriously well known and expected in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have the active matrix type LCD device of Yasui including a reflective LCD device and a Guest-Host LCD device as these displays are known to consume less power since these displays operates without using a backlight.

Response to Arguments

10. Applicant's arguments with respect to claims 18, 45 and 49 have been considered but are moot in view of the new ground(s) of rejection.

With respect to independent claim 18, applicants state that Yasui does not disclose a source enable signal of claim 18, page 9, examiner disagrees. As discussed more in detail above, Yasui expressly teaches the source driver control circuit (a source driver control circuit including a capacitor 26, a resistor 26, an inverter 27 and a circuit for providing signals (D, PCK and M) to control the source driver, fig. 3) receiving a source enable signal (an output VB, figs. 5 and 6B) at a selecting level during the certain period (T) (figs. 5 and 6B).

With respect to claims 45 and 49, applicants state that Yasui does not disclose rectangular wave signal being applied by the LCD erasing means, pages 10-11, examiner disagrees. Yasui, at

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column 6, lines 3-6, expressly teaches "The display electrode 12a and the counter electrode 12b (the latter being supplied with the voltage E2) are both supplied with the common potential within the time Y", i.e., the rectangular wave signal having amplitudes of negative voltage E2 and common potential EG of zero volt.

For the above reasons, it is believed that the rejections should be sustained.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

JHN
June 23, 2003


Amare Mengistu
Primary Examiner